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Earthquake Shaking — Green Alert

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PAGER
Version 4

M 6.1, 130 km S of Punta de Burica, Panama

Origin Time: 2021-07-17 20:56:11 UTC (Sat 14:56:11 local)
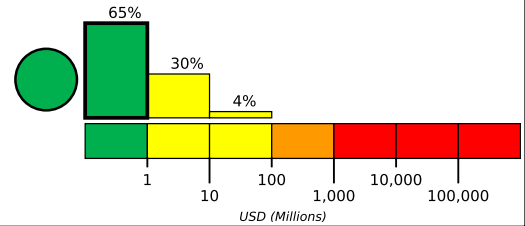Location: 6.8776° N 82.6424° W Depth: 9.1 km

Created: 1 day, 0 hours after earthquake

Estimated Fatalities

65%
30%
4%

1   10   100   1,000   10,000   100,000
Fatalities

Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

Estimated Economic Losses

65%
30%
4%

1   10   100   1,000   10,000   100,000
USD (Millions)

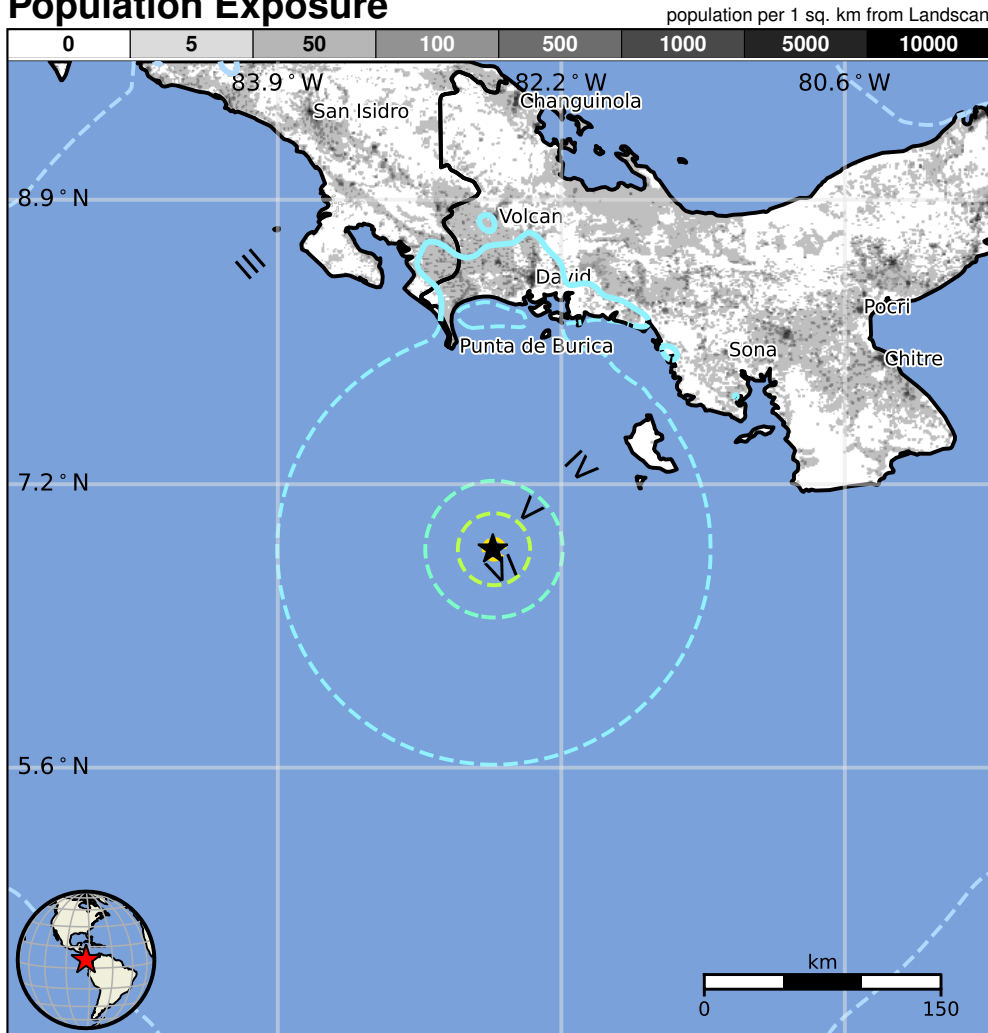## Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)	–*	2,008k*	447k	0	0	0	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE — Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
POTENTIAL DAMAGE — Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure

population per 1 sq. km from Landscan

| 0 | 5 | 50 | 100 | 500 | 1000 | 5000 | 10000 |

Structures

Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction. The predominant vulnerable building types are mud wall and adobe block construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1993-07-10	344	5.8	VII(45k)	1
1990-12-22	386	5.9	VIII(188k)	1
1991-04-22	314	7.6	VII(213k)	75

Recent earthquakes in this area have caused secondary hazards such as landslides and liquefaction that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
IV	Guarumal	2k
IV	Pedregal	16k
IV	Querevalo	<1k
IV	La Esperanza	2k
IV	Progreso	2k
IV	Palo Grande	<1k
IV	**David**	**83k**
III	Santiago de Veraguas	45k
III	Bocas del Toro	13k
III	**Chitre**	**44k**
III	Colon	77k

bold cities appear on map.   (k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.
https://earthquake.usgs.gov/earthquakes/eventpage/us7000emzy#pager

Event ID: us7000emzy